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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/836,753      | 04/17/2001  | Bobby J. Self        | 10003797-1          | 7380             |

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01/02/2003

AGILENT TECHNOLOGIES, INC.  
Legal Department, 51U-PD  
Intellectual Property Administration  
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EXAMINER

LEON, EDWIN A

ART UNIT

PAPER NUMBER

2833

DATE MAILED: 01/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/836,753

Applicant(s)

SELF ET AL.

Examiner

Edwin A. León

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

1. Applicant's Request for continued examination and amendment filed December 2, 2002 have respectively been placed of record in the file as Papers No. 8 and 9.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7 and 9-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kao (U.S. Patent No. 6,017,222) in view of Leman (U.S. Patent No. 6,261,104).

With regard to Claim 1, Kao discloses an electrical connection structure for terminating an electrical signal wire (7) and electrically coupling the electrical signal wire (7) to a target circuit board (30), comprising: an electrical circuit substrate (40) to which the electrical signal wire (7) is coupled, the electrical circuit substrate (40) having a proximate end being coupled via solder to the target circuit board (30), the electrical circuit substrate (40) being substantially perpendicular to the target circuit board (30); and a termination circuit (43) mounted substantially at the proximate end of the

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electrical circuit substrate (40), the termination circuit (43) being electrically coupled to the electrical signal wire (7) and the target circuit board (30). See Figs. 3-8 and Column 2, Lines 50-60.

However, Kao does not show the termination circuit configured to limit the signal reflections on the electric signal wire.

Leman discloses the use of a termination circuit configured to limit the signal reflections. See Column 5, Lines 38-45.

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the connection structure of Kao by having the termination circuit being configured to limit the signal reflections as taught in Lemman in order to pass the electrical signals more effectively in the structure.

With regard to Claim 2, Kao discloses the electrical circuit substrate (40) being a rigid circuit board (40). See Figs. 3-8 and Column 2, Lines 50-60.

With regard to Claim 3, Kao discloses a guide pin (711) connected to the rigid circuit board (40), the guide pin (711) protruding through a corresponding alignment hole in the target circuit board (30). See Figs. 3-8 and Column 2, Lines 50-60.

With regard to Claim 4, Kao discloses the termination circuit (43) comprising at least two stacked passive electrical surface-mount components. See Figs. 3-8 and Column 2, Lines 50-60.

With regard to Claim 5, Kao discloses the termination circuit (43) comprises an active electrical component. See Figs. 3-8 and Column 2, Lines 50-60.

With regard to Claim 6, Kao discloses at least one electrical signal wire (7) may be connected to either side of the rigid circuit board (40). See Figs. 3-8 and Column 2, Lines 50-60.

With regard to Claim 7, Kao discloses the electrical signal wire (7) being a coaxial signal wire having a shield electrically coupled to the rigid circuit board (40). See Figs. 3-8 and Column 2, Lines 50-60.

With regard to Claim 9, Kao discloses the electrical circuit substrate (40) being a flex circuit (40). See Figs. 3-8 and Column 2, Lines 50-60.

With regard to Claim 10, Kao discloses a rigid board attached alongside the flex circuit (40) at the proximate end opposite the side of the flex circuit (40) where the termination circuit (43) is mounted. See Figs. 3-8 and Column 2, Lines 50-60.

With regard to Claim 11, Kao discloses a socket (43) connected to the flex circuit (40), the socket (43) being capable of receiving a mating plug (31) to which the electrical signal wire (7) is connected. See Figs. 3-8 and Column 2, Lines 50-60.

With regard to Claim 12, Kao discloses a guide pin (711) connected to the flex circuit (40), the guide pin (711) protruding through a corresponding alignment hole in the target circuit board (30). See Figs. 3-8 and Column 2, Lines 50-60.

With regard to Claim 13, Kao discloses the termination circuit (43) comprising at least two stacked passive electrical surface-mount components. See Figs. 3-8 and Column 2, Lines 50-60.

With regard to Claim 14, Kao discloses the termination circuit (43) comprising an active electrical component. See Figs. 3-8 and Column 2, Lines 50-60.

With regard to Claim 15, Kao discloses the flex circuit (40) being a rigidized flex circuit (40). See Figs. 3-8 and Column 2, Lines 50-60.

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kao (U.S. Patent No. 6,017,222) in view of Leman (U.S. Patent No. 6,261,104) and Applicant's admitted prior art. The combination of Kao and Leman disclose the claimed invention except for a protective cover that at least partially encloses the rigid circuit board (40).

Applicant's admitted prior art discloses a connection structure having a protective cover (130) that encloses a rigid circuit board (40). See Figs. 1-2.

Thus, it would have been obvious to one with ordinary skill in the art to modify the connector of Kao by including a protective cover as taught in Applicant's admitted prior art to protect the circuit board and the connections against possible damage.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

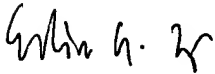
### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edwin A. León whose telephone number is (703) 308-6253. The examiner can normally be reached on Monday - Friday 9:00-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (703) 308-2319. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Edwin A. Leon  
Au 2833

EAL  
December 22, 2002



RENEE LUEBKE  
PRIMARY EXAMINER